



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,717	03/18/2005	Andrew John Skinner	9229-3	6939
20792	7590	06/30/2008		
MYERS BIGEL, SIBLEY & SAJOVEC				
PO BOX 37428				
RALEIGH, NC 27627				
EXAMINER				
PATEL, RAJNIKANT B				
ART UNIT		PAPER NUMBER		
2838				
MAIL DATE		DELIVERY MODE		
06/30/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,717

Applicant(s)

SKINNER, ANDREW JOHN

Examiner

RAJNIKANT B. PATEL

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-25 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephen (U.S. Patent # 5,495,404) in combinations with Statnic (U.S. Patent # 5,962,987) and Reijnaerts (U.S. Patent # 5,550,438) and further in combinations with Jones (U.S. Patent # 4,533,986).

Stephen discloses claimed subject matters a power converter apparatus (figure 1), including a multi-resonant circuit with series resonant (Abstract, line 1-5), an impedance network (column 2, line 5-40). However Stephen does not disclose the utilization of the technique for a frequency dependent impedance, to counteract an inductance of series resonant and a rectifier circuit. Reijnaerts teaches the utilization of

the technique for a frequency dependent impedance (column 4, line 1-70 and column 5, line 1-25), Statnic teaches the utilization of the similar technique to counteract an inductance of series resonant (column 3, line 35-65) and Jones teaches the utilization of the technique for a rectifier circuit (figure 2). It would have been obvious one having an ordinary skill in the art at the time the invention was made to modify Stephen's converter circuit by utilizing the technique taught by Statnic, Reijnaerts and Jones for the purpose of reducing turn off losses.

2. Claims 4-11 are rejected under 35 U.S.C.103 (a) as being unpatentable over Stephen (U.S. Patent # 5,495,404) in combination with Statnic (U.S. Patent # 5,962,987) and further in combination with Zushi (U. S. Patent # 5,051,706). Stephen in combination with Statnic discloses claimed subject matters as explained in the claims 1-3 above, except the utilization of the technique for a cascaded first and second series resonant stages. Zushi teaches the utilization similar technique for a cascaded first and second series resonant stages (Abstract, line 1-25 and figure 5-7). It would have been obvious one having ordinary skill in the art at the time the invention was made to modify Stephen in combination with Statnic's power supply circuit by utilizing the technique taught by Zushi for the purpose of increasing efficiency and protection of the power supply.

3. For method claims 17-25, note that under MPEP 21 12.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily

perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device "1 inherently performs the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed Cir. 1986). Therefore the previous rejections based on the apparatus will not be repeated.

Allowable Subject Matter

Claims 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJNIKANT B. PATEL whose telephone number is (571)272-2082. The examiner can normally be reached on M-Th 7-5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on 571-272-2082. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RAJNIKANT B. PATEL/
Primary Examiner, Art Unit 2838
